

## CLAIMS

We claim:

1. A method for protecting surfaces, comprising the steps of:  
inspecting the application surface;  
5       applying masking materials to protect the application  
surface boundary;  
protecting any functional openings in the application  
surface using convex polyvinyl molding materials over the  
functional openings;  
10       preheating a protective material to a temperature of 40  
degrees Fahrenheit to 120 degrees Fahrenheit;  
applying a releasing agent to the application surface once  
an ambient temperature range between 20 degrees Fahrenheit  
and 120 degrees Fahrenheit is met;  
15       using an application means to apply the heated protective  
material to coat the application surface and wet releasing  
agent;  
inspecting the protective material coating for consistency;  
adjusting the heated protective material coating by  
20       reapplying the protective material as necessary;  
allowing the protective material coating to cure;  
performing work around the coated application surface;  
completing the work around the coated application surface;  
locating any functional openings in the coated application  
25       surface by the convex protrusion in the coated application  
surface;

opening the functional opening by cutting through or pulling off the convex protrusion in the application coating and convex polyvinyl mold thereunder;

performing any necessary work to the functional opening;

5 completing any necessary work to the functional opening;

removing any masking materials used to protect the application surface;

removing the intact remaining protective coating from the coated application surface; and

10 reusing the intact protective coating for surfaces with an identical surface area and geometry as the previous application surface without the necessity of applying any releasing agent or new protective coating materials.

2. The method of claim 1, wherein the protective coating material comprises:

15 between 49% to 52% by weight of a pre-polymer mixture; and between 49% to 52% by weight of a curative mixture.

3. The method of claim 2, wherein the application means comprises an adjustable dual pump sprayer further comprising a disposable spray nozzle tip wherein the pre-polymer mixture and the curative mixture are mixed at the disposable spray nozzle tip and atomized by compression to provide a four to five inch spray pattern.

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4. The method of claim 3, further comprising the sub-step of applying the heated protective material to the application surface to a thickness of from 1/32 to 1/16 of an inch on

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vertical surfaces and to a thickness of 1/16 to 3/32 of an inch on horizontal surfaces.

5. The method of claim 3, further comprising the sub-step of applying means to provide a friction surface to the heated protective material before the protective material cures.

6. The method of claim 5, wherein the means to provide a friction surface to the heated protective material before the protective material cures further comprises the sub-step of applying sand to the heated protective material after it has been applied to the protected surface.

7. The method of claim 3, wherein the application means is portably housed in a manually carried assembly.

8. The method of claim 3, wherein the application means is portably housed in a manually positioned assembly.

9. The method of claim 3, wherein the application means is portably housed in an automotive vehicle.

10. The method of claim 3, wherein the pre-polymer mixture comprises:

from 35% to 75% polymeric diphenylmethane diisocyanate;

from 7% to 35% 4,4-diphenylmethane diisocyanate; and

from 1% to 8% trischloropropyl phosphate.

11. The method of claim 3, wherein the curative mixture comprises:

from 2 % to 76% hydroxyl terminated poly (oxyalkylene)

polyethers;

from 1 % to 17.5% butanediol;

from 1 % to 9% diethyltoluenediamine; and  
from 0.5% to 1% of organotin catalyst.

12. The method of claim 3, wherein the pre-polymer mixture  
comprises:

5 from 0.5% to 1% of toluene diisocyanate;  
from 20% to 67% isocyanate terminated prepolymer;  
from 4% to 10% diphenylmethane diisocyanate;  
from 2% to 4.5% higher oligomers of MDI;  
from 1% to 13% parafinic and naphthenic petroleum blend;  
10 from 16% to 58% chlorinated hydrocarbon; and  
from 2% to 3% hydrophobic silica.

13. The method of claim 3, wherein the curative mixture  
comprises:

from 0.2% to 0.6% of an organomercury catalyst;  
15 from 10% to 17% petroleum hydrocarbon;  
from 38% to 45% polyether polyols;  
from 26% to 37% calcined kaolin; and  
from 8% to 12% hydrophobic silica.

14. The method of claim 3, wherein the releasing agent  
comprises:

20 from 0.5% to 2% Stoddard solvent;  
90% aliphatic hydrocarbon; and  
from 1% to 10% silicone blend.

15. The method of claim 3, wherein the releasing agent  
comprises:

25 90% aliphatic hydrocarbon; and

10% silicone blend.

16. The method of claim 3, wherein the releasing agent comprises:

1.5% Stoddard solvent;

5 90% aliphatic hydrocarbon; and

8.5% silicone blend.

17. The method of claim 3, wherein the pre-polymer mixture comprises:

70% polymeric diphenylmethane diisocyanate;

10 25% 4,4-diphenylmethane diisocyanate; and

5% trischloropropyl phosphate.

18. The method of claim 3, wherein the curative mixture comprises:

74% hydroxyl terminated poly (oxyalkylene) polyethers;

15 17% butanediol;

8.1% diethyltoluenediamine; and

0.9% of organotin catalyst.

19. The method of claim 3, wherein the pre-polymer mixture comprises:

20 0.5% of toluene diisocyanate;

45% isocyanate terminated prepolymer;

7% diphenylmethane diisocyanate;

2% higher oligomers of MDI;

5% parafinic and naphthenic petroleum blend;

25 38% chlorinated hydrocarbon; and

2.5% hydrophobic silica.

20. The method of claim 3, wherein the curative mixture comprises:

0.5% of an organomercury catalyst;

15% petroleum hydrocarbon;

5 43% polyether polyols;

35% calcined kaolin; and

6.5% hydrophobic silica.